

IRT



Easy surface temperature measurements in real time

If you need easy, accurate, affordable surface temperature measurements, you'll love the IRT infrared thermometer. The IRT monitors surface temperature by measuring the thermal energy radiated from any surface within its field of view. Best of all, it's compatible with the ZL6 data logger and ZENTRA Cloud for easy, remote access to data on the cloud.

Non-contact, continuous monitoring

The IRT delivers a continuous stream of temperature data from the entire field of view, not just data from a single leaf. And it's accurate. Research-grade IRT models have an accuracy of ± 0.2 °C (or ± 0.5 °C for the commercial-grade model) when the target temperature is within 20 °C of the sensor body temperature. A radiation shield and mounting bracket are included. Plus it comes with a highly accurate factory calibration.

Many field of view options

Select the right field of view for your application. Choose a circular aperture with half angles of 14, 18, or 22 degrees, or pick a horizontal aperture with 13 degree vertical half angle and 32 degree horizontal half angle (see specs for options).

Accurate, rugged, lightweight, weatherproof

For better accuracy, the IRT measures both the target temperature and the temperature of the sensor itself to correct for the temperature sensitivity of the detector. A tough germanium window makes the sensor durable without decreasing its accuracy. A weatherproof aluminum body withstands harsh weather conditions.

Monitor from your mobile device

Compatible with METER's simple, low-power [ZL6](#) series data loggers and ZENTRA Cloud data visualization software, the IRT lets you download and see automatically graphed data in your office or anywhere with an internet connection. It's easy to set up with no programming required, and you can run the sensor and logger on five AA batteries.

Purpose-built for plant science applications

The IRT isn't some generic infrared thermometer, but a scientific-grade sensor specifically designed for making canopy measurements. So, if you need accurate surface temperature measurements with easy remote data access, the robust, simple, and affordable IRT is perfect for you.

California requires the following notice

⚠ WARNING: This product may contain chemicals including ethylene glycol, lead, nickel, styrene and cadmium, which are known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov



Specifications

Measurement range -30 to 65 °C

Accuracy **Research-grade models** (SI-421, SI-431, SI-4H1): +/- 0.2 °C when sensor body is within 20 °C of target temperature

Commercial-grade model (SI-411): +/- 0.5 °C when sensor body is within 20 °C of target temperature

Field of view **Research grade sensors** offer a circular aperture with half angles of 14, 18, or 22 degrees, or pick a horizontal aperture with 13 degree vertical half angle and 32 degree horizontal half angle

The commercial grade SIL-411 is only available with 22 degree half-angle

Data logging Compatible with METER Em50/50G* (after 2008), EM60 series, ZL6 series, ZSC and ProCheck

***NOTE: SIL-411 commercial-grade sensors aren't supported by EM50s**